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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/939,756	08/28/2001	Koji Ogusu	01-193	3229

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POSZ & BETHARDS, PLC
11250 ROGER BACON DRIVE
SUITE 10
RESTON, VA 20190

EXAMINER
KOVALICK, VINCENT E

ART UNIT	PAPER NUMBER
2673	4

DATE MAILED: 05/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/939,756	OGUSU ET AL.	
	Examiner	Art Unit	
	Vincent E Kovalick	2673	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 August 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *8-10* is/are allowed.

6)☒ Claim(s) *1-7* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *2* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. This Office Action is in response to Applicant's Patent Application, Serial No. 09/939,756, with a File Date of August, 28, 2001.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishizuka (USP 6,351,255).

Relative to claim 1, Ishizuka et al. **teaches** a luminous display and its driving method (col. 5, lines 2-67; col. 6, lines 1-67 and col. 7, lines 1-30); Ishizuka et al. further **teaches** a driving method for driving luminous elements having a plurality of luminous elements, each of which is provided at an intersection of an anode line and a cathode line arranged in a matrix, the anode line being one of scan lines and drive lines and the cathode line being one of other of scan lines and drive lines, the driving method comprising the step of: driving the luminous element provided at an intersection of a desired drive line to emit light in synchronism with scanning while scanning the scan lines (col. 5, lines 6-17), wherein at least one of the scanning lines is first connected to a first voltage, and remaining other scanning lines are connected at the same

time to a second voltage different from the first voltage when switching the scanning line (col. 8, lines 60-64).

The difference between the teaching of Ishizuka et al. and that of the instant invention is that Ishizuka et al. **does not specifically teach** scanning the scan lines at a specific frequency, though it would have been obvious to a person of ordinary skill in the art at the time of the invention in that it is well understood in the art an in common on practice that scanning display scan lines is done at a predefined specific frequency.

Regarding claim 5, Ishizuka et al. further **teaches** said driving method wherein only one scanning line is connected to the first voltage (col. 8, lines 60-64).

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishizuka et al. as applied to claim 1 in item 3 hereinabove, and further in view of Taguchi et al. (USP 6,191,779).

Regarding claim 2, Ishizuka et al. **does not teach** the driving method wherein the first voltage is a source voltage, and the second voltage is a ground voltage.

Taguchi et al. **teaches** a liquid crystal display device for controlling drive of a liquid crystal display (col. 1lines 53-67; col. 2, lines 1-67; col. 3, lines 1-67 and col. 4, lines 1-34);

Taguchi et al. further **teaches** said driving method wherein the first voltage is a source voltage, and the second voltage is a ground voltage (col. 8, lines 31-39).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate in the device as taught by Ishizuka et al. the feature as taught by Taguchi et al. in order to incorporate the means to sequentially activate the scanning lines by applying the first voltage (the higher voltage) to a scanning line while maintaining the remaining scan lines at ground (zero voltage).

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishizuka et al. as applied to claim 1 in item 3 hereinabove, and further in view of Erhart et al. (USP 6,201,522).

Relative to claim 3, Ishizuka et al. **does not teach** the said driving method wherein the first voltage is a negative voltage, and the second voltage is a ground voltage.

Erhart et al. **teaches** a power saving circuit and method for driving a liquid crystal display (col. 4, lines 63-67; col. 5, lines 1-67; col. 6, lines 1-67; col. 7, lines 1-67; col. 8, lines 1-67 and col. 9, lines 1-8)); Erhart et al. further **teaches** said driving method wherein the first voltage is a negative voltage, and the second voltage is a ground voltage (col. 13, lines 36-41).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate in the device as taught by Ishizuka et al. the feature as taught by Erhart et al. in order to put in place the means to speed the build-up to emission of the luminous elements to in turn increase the scanning speed of the display device.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishizuka et al. as applied to claim 1 in item 3 hereinabove, and further in view of Sugahara et al. (USP 6,239,777).

Relative to claim 4, Ishizuka et al. **does not teach** the said driving method wherein a plurality of scanning lines is connected to the first voltage.

Sugahara et al. **teaches** a display device (col. 2, lines 25-67; col. 3, lines 1-67; col. 4, lines 1-67; col. 5,lines 1-67; col. 6, lines 1-67 and col. 7, lines 1-9); Sugahara et al. further **teaches** said driving method wherein a plurality of scanning lines is connected to the first voltage (col. 25, lines 45-48).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to

incorporate in the device as taught by Ishizuka et al. the feature as taught by Sugahara et al. in order to reset all scanning lines to the same voltage potential when shifting to the next scanning line, this increases the build up of display speed form applying a voltage to actual emission.

7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishizuka et al. as applied to claim 1 in item 3 hereinabove, and further in view of Sasaki et al. (USP 5,404,031).

Relative to claim 6, Ishizuka et al. **does not teach** the said driving method wherein the luminous element is a current injection type luminous element.

Sasaki et al**. teaches** a semiconductor light emitting device (col. 2, lines 17-48); Sasaki et al. further **teaches** the said driving method wherein the luminous element is a current injection type luminous element (col. 1, lines 15-18 and col. 6, lines 50-56).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate in the device as taught by Ishizuka et al. the feature as taught by Sasaki et al. in order to use a luminous element that provides for a fast buildup of emission to increase the speed of an image display device.

8. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki et al. as applied to claim 6 in item 7 hereinabove, and further in view of Ishizuka et al.

Regarding claim 7, Sasaki et al. **does not teach** said driving method wherein the current injection type luminous element is an organic electroluminescent element.

Ishizuka et al. **teaches** said driving method wherein the current injection type luminous element is an organic electroluminescent element (col. 5, lines 53-56).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate in the device as taught by Sasaki et al. the feature as taught by Ishizuka et al. in

order to use an organic electroluminescent element that has a high luminescence intensity and maintains stable performance with repeated use.

Allowable Subject Matter

9. Claims 8-10 are allowed.

10. The following is an examiner's statement of reasons for allowance:

Relative to claim 8, the major difference between the teachings of the prior art of record (USP 6,351,255, Ishizuka et al.; USP 6,191,779, Taguchi et al. and USP 6,201,522, Erhart et al.) and that of the instant invention is that said prior art of recored **does not teach** a driving method wherein an already selected scanning line is connected to the source voltage and a reverse bias is applied thereto, and at the same time remaining scanning lines other than the already selected scanning line are connected to a ground voltage so as to discharge a charge stored to the remaining scanning lines, in a course of switching from the already selected scanning line to a next scanning line.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U. S. Patent No.	6,501,226	Lai et al.
U. S. Patent No.	6,002,206	Harrison et al.
U. S. Patent No.	5,844,368	Okuda et al.
U. S. Patent No.	4,652,872	Fujita

Responses

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vincent E Kovalick whose telephone number is 703 306-3020. The examiner can normally be reached on Monday-Thursday 7:30- 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 703 305-4938. The fax phone numbers for the organization where this application or proceeding is assigned are 703 872-9314 for regular communications and 703 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 306-0377.

Vincent E. Kovalick
May 13, 2003